

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) An image processing device comprising:
extraction means for extracting at least one or more document block blocks,
wherein each the extracted at least one document block contains a specific image to
be processed, from among a portion of an entire image, the entire image including at
least one character or figure characters and/or figures, wherein all the extracted
document blocks together contain fewer characters or figures than does the entire
image;
recognition means for recognizing character code from a character image
within the at least one document block;
reconstruction means for reconstructing the at least one document block
blocks in a specific shape based on the extracted at least one document block
blocks, wherein all the reconstructed document blocks are together less than the
entire character and/or figure portion of the entire image; and
layout means for laying out character code data corresponding to the
character code recognized by the recognition means within the at least one
reconstructed document block blocks.

2. (Previously Presented) An image processing device as claimed in
claim 1, wherein the extraction means extracts a plurality of document blocks, and

the reconstruction means arranges the plurality of extracted document blocks into a single block reconstructed to the specific shape.

3. (Original) An image processing device as claimed in claim 1, wherein the specific image includes a character image of a headline and a character image of body text corresponding to the headline.

4. (Currently Amended) An image processing device as claimed in claim 3, further comprising headline character arrangement means for arranging character code data corresponding to the character image of the headline at a specific position within the at least one reconstructed document block.

5. (Currently Amended) An image processing device as claimed in claim 1, wherein the reconstruction means adjusts a vertical or horizontal dimension of the at least one document block to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the at least one document block.

6. (Original) An image processing device as claimed in claim 1, further comprising file generation means for generating an electronic file storing the character code data laid out by the layout means.

7. (Original) An image processing device as claimed in claim 1, further comprising a printer for printing the character code data laid out by the layout means on a recording substrate.

8. (Original) An image processing device as claimed in claim 1, further comprising a reader for optically reading an image of a document to obtain the image data to be processed.

9. (Currently Amended) A program for causing a computer to execute image processing comprising the steps of:

extracting at least one or more document block blocks, wherein each the extracted at least one document block contains a specific image to be processed, from among a portion of an entire image, the entire image including at least one character or figure characters and/or figures, wherein all the extracted document blocks together contain fewer characters or figures than does the entire image;

recognizing character code from a character image within the at least one document block;

reconstructing the at least one document block blocks in a specific shape based on the at least one extracted document block blocks, wherein all the reconstructed document blocks are together less than the entire character and/or figure portion of the entire image; and

laying out character code data corresponding to the recognized character code within the at least one reconstructed document block blocks.

10. (Previously Presented) A program as claimed in claim 9, wherein a plurality of document blocks are extracted at the step of extracting, and the plurality of extracted document blocks are arranged into a single block reconstructed to the specific shape at the step of reconstructing.

11. (Original) A program as claimed in claim 9, wherein the specific image includes a character image of a headline and a character image of body text corresponding to the headline.

12. (Currently Amended) A program as claimed in claim 11, wherein the image processing further comprises a step of arranging character code data corresponding to the character image of the headline at a specific position within the at least one reconstructed document block.

13. (Currently Amended) A program as claimed in claim 9, wherein at the step of reconstructing a vertical or horizontal dimension of the at least one document block is adjusted to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the at least one document block.

14. (Original) A program as claimed in claim 9, wherein the image processing further comprises a step of generating an electronic file storing the character code data laid out at the step of laying out.

15. (Original) A program as claimed in claim 9, wherein the image processing further comprises a step of printing on a recording substrate the character code data laid out at the step of laying out.

16. (Original) A program as claimed in claim 9, wherein the image processing further comprises a step of reading an image of a document to obtain the image data to be processed.

17. (Currently Amended) An image processing method comprising the steps of:

extracting at least one or more document block blocks, wherein each the extracted at least one document block contains a specific image to be processed, from a portion of an entire image among image data including at least one character or figure characters and/or figures, wherein all the extracted document blocks together contain fewer characters or figures than does the entire image;

recognizing character code from a character image within the at least one document block;

reconstructing the at least one document block blocks in a specific shape based on the extracted at least one document block blocks, wherein all the reconstructed document blocks are together less than the entire character and/or image portion of the entire image; and

laying out character code data corresponding to the recognized character code within the reconstructed at least one document block blocks.

18. (Currently Amended) An image processing device as claimed in claim 1, wherein the extracted at least one document block is a marked portion of the entire image.

19. (Currently Amended) An image processing device as claimed in claim 1, wherein the extracted at least one document block is a headline and body text of the entire image.

20. (Currently Amended) An image processing device as claimed in claim 1, wherein the extracted at least one document block also includes a photographic image area that is extracted and laid out with the character code data.

21. (Currently Amended) A program as claimed in claim 9, wherein the extracted at least one document block is a marked portion of the entire image.

22. (Currently Amended) A program as claimed in claim 9, wherein the extracted at least one document block is a headline and body text of the entire image.

23. (Currently Amended) A program as claimed in claim 9, wherein the extracted at least one document block also includes a photographic image area that is extracted and laid out with the character code data.

24. (Currently Amended) A method as claimed in claim 17, wherein the extracted at least one document block is a marked portion of the entire image.

25. (Currently Amended) A method as claimed in claim 17, wherein the extracted at least one document block is a headline and body text of the entire image.

26. (Currently Amended) A method as claimed in claim 17, wherein the extracted at least one document block also includes a photographic image area that is extracted and laid out with the character code data.

27. (Currently Amended) An image processing device comprising:
an extraction circuit unit adapted to extract at least one or more document block blocks, wherein each the extracted at least one document block contains a specific image to be processed, from among a portion of an entire image, the entire image including at least one character or figure characters and/or figures, wherein all the extracted document blocks together contain fewer characters or figures than does the entire image;

a recognition circuit unit adapted to recognize character code from a character image within the at least one document block;

a reconstruction circuit unit adapted to reconstruct the at least one document block blocks in a specific shape based on the extracted at least one document block, wherein all the reconstructed document blocks are together less than the entire character and/or figure portion of the entire image; and

a layout circuit unit adapted to lay out character code data corresponding to the character code recognized by the recognition means within the reconstructed at least one document block blocks.

28. (Currently Amended) An image processing device as claimed in claim 1, wherein an area of the reconstructed at least one document block blocks is the same as a total area of the extracted at least one document block blocks.

29. (Currently Amended) A program as claimed in claim 9, wherein an area of the reconstructed at least one document block blocks is the same as a total area of the extracted at least one document block blocks.

30. (Currently Amended) An image processing method as claimed in claim 17, wherein an area of the reconstructed at least one document block blocks is the same as a total area of the extracted at least one document block blocks.

31. (Currently Amended) An image processing device as claimed in claim 27, wherein an area of the reconstructed at least one document block blocks is the same as a total area of the extracted at least one document block blocks.

32. (New) An image processing device comprising:
at least one circuit for;
extracting at least one document block, wherein the extracted at least one document block contains a specific image to be processed, from among an

entire image, the entire image including at least one character or figure, wherein all the extracted document blocks together contain fewer characters or figures than does the entire image;

recognizing character code from image data within the at least one document block;

reconstructing the at least one document block in a specific shape based on the at least one extracted document block; and

laying out character code data corresponding to the recognized character code within the reconstructed at least one document block.

33. (New) An image processing device comprising:

at least one circuit for;

extracting at least one document block from an entire image, the at least one document block being identified by a perimeter and containing a specific image to be processed, the perimeter being established by the user beforehand;

recognizing character code within the at least one document block;

reconstructing the at least one document block in a specific shape based on the at least one extracted document block; and

laying out character code data corresponding to the recognized character code within the reconstructed at least one document block.

34. (New) The image processing device of claim 33, wherein the perimeter is established by the user beforehand on an original document using a drawing instrument.

35. (New) The image processing device of claim 33, wherein the perimeter is established by the user using coordinates on the entire image.

36. (New) The image processing device of claim 33, wherein the perimeter is established by the user using an interface with the image processing device.